

WHAT IS CLAIMED IS:

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1. A method for providing power within a telephone server coupled to a computer system via an interface bus, to a maximum number of telephones, and to a telephone trunk, the computer system providing a primary voltage and a secondary voltage, the method including:

receiving the primary voltage and the secondary voltage from the computer system;

providing ringer power in response to the primary voltage;

providing direct inward dialing power in response to the primary voltage, the direct inward dialing power configured to provide a first operational power for telephones from the maximum number of telephones receiving telephone calls directly from the telephone trunk;

providing second operational power in response to the primary voltage for telephones from the maximum number of telephones receiving telephone calls from other telephones from the maximum number of telephones; and

providing a ringing signal in response to the ringer power and to the secondary voltage;

wherein the ringer power powers ringers of no more than approximately one half of the maximum number of telephones at a time.

2. The method of claim 1 further comprising:

providing an indicator light signal in response to the primary voltage, the indicator light signal for powering indicator lights of no more than approximately a half of the maximum number of telephones at a time.

3. The method of claim 1 further comprising:

wherein the indicator light signal applied to an indicator light has a duty cycle of approximately 50 percent.

4. The method of claim 1 further comprising:

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Sub A1 providing indicator light power in response to the primary voltage, the indicator light power for powering indicator lights of no more than approximately a quarter of the maximum number of telephones at a time.

5 5. The method of claim 1 wherein the ringing signal is also in response to a ring enable signal and has a duty cycle of approximately 33 percent.

6. The method of claim 5 wherein the ringer power powers ringers of no more than approximately one third of the maximum number of telephones at a time.

10 7. The method of claim 1 wherein the first operational voltage is approximately twice the second operational voltage.

15 8. The method of claim 1 further comprising:  
loading driver software for the telephone server on the computer system; and  
configuring the telephone server with the driver software, before providing the  
ringer power.

Sub A2 9. A telephone server coupled to a computer system via a computer bus,  
20 configured to provide output power and signals to a plurality of telephones, and to a  
telephone trunk, the computer system providing a primary voltage and a secondary voltage,  
the telephone server comprising:

25 a transformer circuit configured to receive the primary voltage and to provide  
first operational power in response to the primary voltage signal, to provide second  
operational power in response to the primary voltage, and to provide ringer power in response  
to the primary voltage, the first operational power for providing power to telephones  
receiving telephone calls from the telephone trunk, the second operational power for  
providing power to telephones receiving telephone calls from other telephones of the plurality  
of telephones; and

30 ringer circuitry coupled to the transformer circuit configured to receive the  
ringer power, to receive the second voltage, and to provide a ringing signal in response

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thereto;

wherein the transformer circuit provides the ringer power for no more than approximately one half a maximum number of telephones coupleable to the telephone server at a time.

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10. The telephone server of claim 9

wherein the transformer circuit is also configured to provide an indicator light power in response to the primary voltage, and

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wherein the transformer circuit provide the indicator light power for no more than approximately one quarter the maximum number of telephones coupleable to the telephone server at a time.

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11. The telephone server of claim 10 further comprising indicator light circuitry coupled to the transformer circuit configured to provide an indicator light signal in response to the indicator light power, the indicator light signal having a duty cycle of less than approximately 25 percent.

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12. The telephone server of claim 9 further comprising:

wherein the transformer circuit is also configured to provide an indicator light power in response to the primary voltage, and

wherein the transformer circuit provides the indicator light power for no more than approximately one half the maximum number of telephones coupleable to the telephone server at a time.

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13. The telephone server of claim 9

wherein the ringer circuitry is also configured to receive a ring enable signal; and

wherein the ringing signal has a duty cycle of less than approximately 33 percent.

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14. The telephone server of claim 13 wherein the transformer circuit

Sub A2  
provides the ring signal for no more than approximately one third the maximum number of telephones coupleable to the telephone server at a time.

15. The telephone server of claim 9 wherein the first operational voltage is  
5 greater than the second operational voltage.

16. The telephone server of claim 15 wherein the first operational voltage is approximately twice the second operational voltage.

10 17. The telephone server of claim 9 further comprising:  
wherein the transformer circuit is also configured to receive an enabling signal from the computer system; and  
wherein the transformer circuit is also configured to provide the first operational power in response to the enabling signal.

15 Sub A3  
18. A method for a telecommunications interface for providing drive voltages for a plurality of telephones coupled thereto, the telecommunications interface also coupled to a computer system, the computer system providing a first drive voltage and a second drive voltage to the telecommunications interface, the method including:  
20 receiving an enabling signal for the telecommunications interface from the computer system;  
providing a ringing drive voltage with the telecommunications interface in response to the first drive voltage and to the enabling signal;  
providing a first operational drive voltage for a telephone from the plurality of  
25 telephones when a directly dialed call from the telephone trunk is for the telephone;  
providing a second operational drive voltage for the telephone when an internally dialed call from another telephone of the plurality of telephones is for the telephone; and  
providing a ring signal for the telephone in response to the ringing drive  
30 voltage, and to the second operational drive voltage when the internally dialed call is for the telephone.

19. The method of claim 18 wherein providing the ring signal for the telephone is also in response to the first operational drive voltage when the directly dialed call is for the telephone.

20. The method of claim 18 wherein providing a first operational drive voltage for the telephone is also in response to the enabling signal.

21. The method of claim 20 wherein providing a second operational drive voltage for the telephone is also in response to the enabling signal.

22. The method of claim 18 further comprising:  
providing an indicator light drive voltage in response to the primary voltage and to the enabling signal.

23. The method of claim 22  
wherein the plurality of telephones is a maximum number of telephones that can be coupled to the telecommunications interface; and  
wherein the indicator light drive voltage powers indicator lights of no more than approximately one half of the maximum number of telephones at a time.

24. The method of claim 23 wherein the indicator light drive voltage powers indicator lights of no more than approximately one quarter of the maximum number of telephones at a time.

25. The method of claim 18  
wherein the plurality of telephones is a maximum number of telephones that can be coupled to the telecommunications interface; and  
wherein the ringing drive voltage powers ringers of no more than approximately one half of the maximum number of telephones at a time.

26. The method of claim 25 wherein the ringing drive voltage powers ringers of no more than approximately one third of the maximum number of telephones at a time.

5 27. The method of claim 26 wherein the ring signal has a duty cycle of less than approximately 33 percent.

28. The method of claim 18 wherein the first operational drive voltage has a magnitude approximately twice a magnitude of the second operational drive voltage.

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